

PROSPECTS
FOR LONG-RANGE
CAPITAL PLANNING
IN CALIFORNIA
PUBLIC HIGHER
EDUCATION

A Preliminary Review



CALIFORNIA
POSTSECONDARY
EDUCATION
COMMISSION

Summary

The California Postsecondary Education Commission has long been involved in various aspects of the capital outlay process, including the review of proposals for new campuses and off-campus centers, the review of bond issue legislation, the projection of new campus costs, and the analysis of space and utilization standards

Now, due to the most severe budget crisis in the history of California's State government, and the continuing rapid growth in the demand for postsecondary education services, the Commission has decided to expand its involvement in capital outlay review, specifically to (1) collect comprehensive, integrated information on systemwide capital needs over the next 15 years, (2) examine the capital outlay process itself, particularly at the State level; (3) analyze possible funding alternatives for capital construction and renovation; and (4) review available options for reducing capital costs by addressing the cost per square foot of construction

This staff report constitutes the first step in this expanded area of concern. It contains five- and fifteen-year projections of capital outlay needs in each of the three public systems, including preliminary delineations of the amounts needed for new construction and renovation, a description of present and potential funding options, with several displays indicating the mechanics and costs of the bonding process; a brief description of the approval process necessary to bring buildings from the point of conception to occupancy; and a conclusion that suggests areas for further exploration

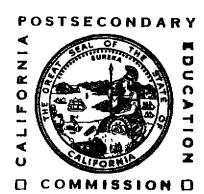
From this initial discussion of the subject, it is clear that available funding sources will be insufficient to meet all of the needs stated by the systems to be necessary. Consequently, and assuming ways cannot be found to expand funding beyond recent levels, the options will be either to reduce enrollments, or discover greater efficiencies in the use of physical facilities. In the coming months -- and perhaps years -- the Commission staff intends to explore any and all available options.

The Commission discussed this report at its meeting of January 27, 1992. Additional copies of the report may be obtained from the Publications Office of the Commission at (916) 324-4992

PROSPECTS FOR LONG-RANGE CAPITAL PLANNING IN CALIFORNIA PUBLIC HIGHER EDUCATION

A Preliminary Review

A Staff Report to the California Postsecondary Education Commission



CALIFORNIA POSTSECONDARY EDUCATION COMMISSION Third Floor • 1020 Twelfth Street • Sacramento, California 95814-3985



COMMISSION REPORT 92-4 PUBLISHED JANUARY 1992

Contributing Staff: William L. Storey

This report, like other publications of the California Postsecondary Education Commission, is not copyrighted. It may be reproduced in the public interest, but proper attribution to Report 92-4 of the California Postsecondary Education Commission is requested.

Contents

Projections of Need	3
University of California	8
The California State University	Ę
California Community Colleges	5
Funding Options	6
The Capital Outlay Process	8
Summary and Conclusions	12
References	18

Displays

1.	Capital Outlay Cost Estimates for Construction of New Campuses in Each of California's Public Segments of Higher Education, in 1990 Dollars	2
2.	Implementing the Segments' Plans, Capital Outlay Cost Estimates	2
3.	Projected Captial Outlay Requests by the University of California, the California State University, and the California Community Colleges, 1992-93 to 1996-97 (State Funded)	3
4.	University of California Estimated Need for Capital Outlay Funding, 1989-90 to 2005-06	4
5 .	University of California Fund Raising History, 1981-82 to 1990-91	4
6.	Estimated Annual Capital Outlay Expenditures by the California Community Colleges, by Category, 1995-96 to 2005-06	6
7.	Estimated Capital Outlay Expenditures for Maintenance and Repairs in the California Community Colleges, by Category, 1992-93 to 2005-06	6
8.	Comparison Between General Obligation Bonds and Revenue Bonds	8
9.	Relative Costs of Bond Financing for a \$100 Million Project	9
10.	Simulated General Obligation Bond Amortization Schedule for a \$100 Million Issue over 20 Years at 6.0 Percent Interest	10
11.	Simulated Revenue Bond Amortization Schedule for a \$100 Million Issue Over 20 Years at 65 Percent Interest	11
12.	Interest Rates Applicable to Sales of General Obligation Bonds by the State Treasurer, 1989 to 1991	12
13.	Stages in the Capital Outlay Approval and Construction Process	13
14.	Simplified Flow Diagram, Capital Outlay Process for State-Funded Projects, University of California	14
15.	Simplified Flow Diagram, Capital Outlay Process for State-Funded Projects, the California State University and the California Community Colleges	15

Prospects for Long-Range Capital Planning in California Public Higher Education: A Preliminary Review

PURSUANT to its responsibilities as California's statewide planning agency, the Commission agreed in its 1991-92 Plan of Work to analyze capital outlay funding in California public higher education. Specifically, it stated (1991b, p. 9)

As part of its work on long-range planning for higher education, Commission staff propose to present a comprehensive analysis of long-range funding requirements for capital facilities in California public higher education, demand for repair and renovation of existing space, remodeling demands; expansion of space on current campuses; and new campus demands. The funding options, and policy recommendations on appropriate sources of funds to meet new demands, will be part of the effort. A preliminary review of total capital requirements is planned for the January 1992 meeting, with policy recommendations on funding options to follow

Previously, the Commission had addressed the subject of capital needs in Higher Education at the Crossroads (1990a). In that report, the Commission estimated total capital costs driven exclusively by growth, for both new campuses and off-campus centers, at \$513.9 million per year between 1990 and 2005, in constant 1990 dollars. The estimates provided at that time are shown in Displays 1 and 2 on page 2, but since costs for renovation were unknown and assumed to be additional, it was clear that total capital outlay needs were considerably greater

Subsequently, the Legislature directed the three systems of public higher education to develop statewide five-year capital outlay spending plans. These plans have now been submitted, and they indicate a considerably greater need than previously supposed. They total \$5,133,588,535 -- for an average of about one billion dollars per year for all purposes. The amounts are shown in Display 3 on page 3.

Last September 30, the Commission forwarded a request to each of the systemwide central offices that asked specifically for delineations of the costs of

new construction on both new and existing campuses through the year 2005, as well as the costs of renovation on existing campuses, the costs of implementing the new space and utilization standards proposed in the Commission's A Capacity for Learning (1990b), the possibility of finding new sources of capital outlay funding, and the possibility of streamlining the capital outlay process itself in some way.

The space and utilization standards issue is of particular concern at this time for several reasons:

- First, the crisis atmosphere that has surrounded legislative deliberations over the budget since 1990 has prevented a careful policy examination of the Commission's recommendations.
- Second, many of the Commission's recommendations for additional space research — including those to develop utilization studies and more precise definitions of capacity and non-capacity space — could have a direct impact on current capital outlay appropriations, yet they have not been implemented due to lack of legislative direction.
- Third, some of the recommendations -- such as those for University of California research laboratories -- are being implemented piecemeal without a coordinated approach
- Fourth, several other states have adopted the Commission's recommended standards, and have been somewhat surprised to learn that California has not done so also

In this review, the Commission provides a projection of capital outlay need over the next 14 years as provided by the systemwide offices. It then discusses how the capital outlay process works, how capital projects are funded, and what the costs of that funding are. Finally, it offers some comments on the possibilities for further exploration of the subject.

DISPLAY 1 Capital Outlay Cost Estimates for Construction of New Campuses in Each of California's Public Segments of Higher Education, in 1990 Dollars

	Size of Campus (FIE/ADA)*	Cost per Campus
University of California		, ,
Start-Up (New Campus)	3,520	\$209,221,140
Total Cost at Build-Out (UC Estimate)	25,000	\$2,445,021,304
Total Cost at Build-Out (CPEC Estimate)	25,000	\$2,329,192,860
The California State University		
Start-Up (Off-Campus Center)	2,000	\$63,533,000
Total Cost at Build-Out (CSU Estimate)	25,000	\$526,719,000
Total Cost at Build-Out (CPEC Estimate)	25,000	\$597,827,59 8
California Community Colleges		
Start-Up (Off-Campus Center)**	1,150	\$12,198,050
Total Cost at Build-Out	8,000	\$100,600,000

Average daily attendance (ADA) is used for the community colleges; full-time-equivalent enrollment (FTE) for the University of California and The California State University

Note The Commission's cost estimates are based on historic actuals for representative campuses, adjusted for inflation and current estimate space deficiencies. This includes funding for projects traditionally paid for with non-State funds. Estimates assume a 30-year effective life for University facilities, 50 years for State University facilities, and 50 years for community college facilities. University costs and Commission estimates of University costs include auxiliary enterprises not usually financed through State funds.

Source California Postsecondary Education Commission, 1990a, p 33, Display 17

DISPLAY 2 Implementing the Segments' Plans, Capital Outlay Cost Estimates

Growth to 2005	Total Cost	Cost per Year
University of California (30,716 FTE)		•
New Campuses	\$1,011,600,000	
Existing Campuses	\$1,747,600,000	
Total	\$2,759,200,000	\$183,900,000
The California State University (134,500 FTE)		
New Campuses	\$743,220,000	
Existing Campuses	\$1,572,135,000	
Total	\$2,315,355,000	\$154,357,000
California Community Colleges (540,019 Headcount)		
New Campuses	\$953,304,000	
Existing Campuses	\$1,681, 863,000	
Total	\$2,635,1 67,000	\$175,677,0 00

Source California Postsecondary Education Commission, 1990a, p. 33, Display 18

^{••} Community colleges start-up estimates exclude land acquisition costs, which vary from \$0 to \$400,000 per acre

DISPLAY 3 Projected Capital Outlay Requests by the University of California, the California State University, and the California Community Colleges, 1992-93 to 1996-97 (State Funded)

Year	University of California	The California State University	Cabforma Community Colleges	Total
1992-93	\$247,350,000	\$238,080,000	\$176,309,000	\$661,739,000
1993-94	227,350,000	319,257,000	826,156,268	1,372,763,268
1994-95	246,499,000	537,428,000	522,788,120	1,306,715,120
1995-96	232,475,000	589,401,000	274,600,837	1,096,476,837
1996-97	211,020,000	343,006,000	141,868,310	695,894,310
Total	\$1,164,694,000	\$2,027,172,000	\$1,941,722,535	\$5,133,588,535
Annual Average	\$232,938,800	\$ 405,434,400	\$388,344,507	\$1,026,717,707
Percent of Total	22.7%	39 5%	37 8%	100 0%

Sources University of California, the California State University, and California Community Colleges capital outlay requests

Projections of need through 2005

University of California

In October 1988, President Gardner presented to the Regents an estimate of the University of Califorma's capital construction needs between 1989-90 and 2005-06 That estimate, shown in Display 4 on the next page, indicated an average need over the entire 17-year period of \$424 2 million per year for all purposes and from all sources. Among the purposes was the anticipated need for three new campuses, for which \$1.0 billion was allocated over the entire 17-year period, or \$59.5 million per year In this connection, it should be noted that the University is now actively pursuing only one additional campus -- in the San Joaquin Valley, in part due to the Commission's recommendations in Higher Education at the Crossroads. Further, in the Crossroads report, the Commission noted that the full build-out cost for each campus would be about \$2 4 billion in 1990 dollars. Given that the time between initial opening and full build-out often encompasses several decades, the University's \$1 0 billion figure and the Commission's figures are not necessarily incompatible

Among the sources of funds needed to finance capital construction, the University projects that about \$100 million per year would come from private gifts and bequests Over the past 10 years, the Universi-

ty has raised an average of \$74 0 million per year in 1991 dollars from non-public sources for capital outlay projects. In only one of those years -- 1989-90 -- did fund-raising exceed the anticipated \$100 million per year funding goal, although several other years showed giving in excess of \$80 million. Display 5 shows this fund-raising history.

In response to the Commission's recent request, the University updated its 1988 figures, which as shown at the bottom of Display 4, indicate an annual need for State funds of \$393.5 million in 1992 dollars; the previous estimate of \$324.2 million per year having been calculated in 1988 dollars. The University estimates that renovation projects will account for about 58 percent of the capital outlay budget (excluding health sciences) through 2005-06. This \$393 5 million is considerably more money than the University is requesting over the next five years -- \$232 9 million per year -- even after factoring out the annual cost for three new campuses -about \$60 to \$65 million per year The difference may be accounted for in several ways. (1) the longrange projections could be overly generous; (2) the requests for the next five years may have been scaled back to account for the current environment of budgetary austerity, (3) a portion of the current budget is "front loaded," with major project costs coming due after 1996-97, or (4) some combination of all of these factors.

DISPLAY 4 University of California Estimated Need for Capital Outlay Funding, 1989-90 to 2005-06

Category	Total Dollars (in Millions)	17-Year Annual Average (in Millions)
Existing Campuses		
New Construction		
Due to past enrollment growth (backlog)	\$445.4	\$26 2
Due to future enrollment growth	1,302 2	76 6
Not due to enrollment growth	438 2	25.8
Renovation	3,051 5	179 5
Health Sciences	962.2	56 6
New Campuses (assumes three)	<u>1,011 6</u>	<u>59 5</u>
Total Need	\$7 ,211 1	\$424 2
Estimated Potential Funding from Non-State Sources	1,700 0	100 0
Resulting Need for State Funds (17-Year Total and Average)	\$5,511 1	\$324 2
Update for 1992-93 to 2005-06 (14-Year Total and Average)	\$5,508.4	\$39 3.5

Source Office of the President, University of California

DISPLAY 5 University of California Fund Raising History, 1981-82 to 1990-91

<u>Year</u>	Total Funds Raised in Constant 1991 Dollars	Dollars Raused for Capital	Share Raised for Capital
1981-82	\$200,519,789	\$ 61,359,055	30.6%
1982-83	203,297,178	23,989,067	11 8
1983-84	268,045,842	66,743,415	24 9
1984-85	273,442,403	61,977,656	22 3
1985-86	297,806,075	63,134,888	21 2
1986-87	333,058,828	88,926,707	26 7
1987-88	342,550,718	84,267,477	24 6
1988-89	388,126,322	79,954,022	20 6
1989-90	448,128,711	120,994,752	27.0
1990-91	<u>414,715,059</u>	<u>89,163,738</u>	21 5
10-Year Total	\$3,169,690,925	\$739 ,510, 777	
Annual Average	\$316,969,093	\$ 73,951,078	23.3%

Source Office of the President, University of California

Concerning the costs of the Commission's recommended space standards, the University believes that the new standards will not increase costs, since it abandoned the old standards (many of them developed in 1955) some ten years ago and has been using standards since the mid-1980s that are similar to the Commission's recommendations, particularly for research laboratories. For all effects and purposes, the Legislature has endorsed this practice by appropriating funds for construction projects that do not recognize the 1955 array of formulas

The California State University

The California State University's 1991 Five-Year Plan for the 1992-93 to 1996-97 fiscal years presents a spending program totaling about \$2.0 billion, as indicated in Display 3. In its response to the Commission's September 30 request, the State University indicates that its primary needs between 1992-93 and 2005-06 will be \$5,625 million, or \$432 7 million per year in today's dollars It estimates that 55 percent of these funds is for new construction, including the San Marcos campus and the Ventura and Contra Costa off-campus centers, and 45 percent is for renovation projects. This is a straightline projection or extrapolation from the State University's Five-Year Plan and not a true long-range analysis, so it may be expected that considerable changes in that projection will be forthcoming in future years

The State University hastens to point out that it has other capital needs that are not fully accounted for even in this somewhat daunting estimate. Not included is an additional \$250 million in deferred maintenance, nor some \$300 million for the seismic upgrading of many existing buildings, since this amount was not included in the Five-Year Plan When these costs for deferred maintenance — which is often, but not always, funded through the support budget — and seismic upgrading are included, the grand total for the State University comes to \$6,475 million, or \$462.5 million per year

Concerning new campuses and centers, the State University has not announced any specific expansion plans, although in its report submitted to the Joint Legislative Budget Committee on August 1, 1991, it suggested the need for five new off-campus centers by the year 2005-06 with a total capacity of 6,200 full-time-equivalent students (The California

State University, 1991) The cost estimates above do not include provision for these facilities, should they turn out to be needed, which is by no means certain at the present time, especially given the reduction in enrollment projected to be experienced by the State University in the current year (California Postsecondary Education Commission, 1991c)

Regarding the cost of the space and utilization standards proposed by the Commission in A Capacity for Learning, the State University offers a somewhat mixed answer On the one hand, it anticipates that the new standards "would provide for greater space allocations per FTE"; On the other hand, it indicates that "we do know that many more students could be accommodated in quality lecture space than jammed in smaller labs." It adds that because it has not conducted a full analysis of the problem, it consequently cannot say for certain what the effect might be The Commission's position has always been that the proposed standards are cost neutral where classrooms and teaching laboratories are concerned, principally because the greater allocations accorded to classroom space are canceled by the fact that classrooms are cheaper to build than laboratories. There is no question, however, that the added space for faculty offices will result in some increased expenditures.

California Community Colleges

As shown in Display 3, the California Community Colleges anticipate average annual capital expenditures of \$388.3 million between 1992-93 and 1996-97. In the Long-Range Capital Outlay Growth Plan (Board of Governors, 1990), however, the Chancellor's Office estimated that \$212 million per year will be required between 1990 and 2005 in 1990 dollars In its most recent estimate, produced at the Commission's request, the Chancellor's Office has divided the community colleges' total need into three parts The first is the \$1.525 billion that has already been requested for 1992-93 through 1994-95 in the Chancellor's 1992-93 Five-Year Capital Outlay Plan (Chancellor's Office, 1991) The second is an estimate of \$250 million per year thereafter through 2005-06 The third is an estimated \$1,757 million (\$125 5 million per year) more that will be required for certain kinds of repairs and renovations Display 6 on the next page provides a delineation of the annual \$250 million estimated need in

DISPLAY 6 Estimated Annual Capital Outlay Expenditures by the California Community Colleges, by Category, 1995-96 to 2005-06

Construction Categor	Dollar Amount (millions)	Percent of Total
Repair and Renovation	\$8 0	3.2%
Remodeling	20 5	8 2
Space expansion on existing campuses	116 5	46 6
New campuses and off-campus centers	105 0	42 0
Total	\$250 0	100 0%

Source Chancellor's Office, California Community Colleges

DISPLAY 7 Estimated Capital Outlay Expenditures for Maintenance and Repairs in the California Community Colleges, by Category, 1992-93 to 2005-06

Construction Category	Dollar Amount (millions)	Percent of Total
Roofs	\$263 0	15 0%
Utılıtıes	369 0	21 0
Mechanical and Utility Systems	439 3	25 0
External Refurbishing and Painting	140 6	80
Other	544.7	31 0
Total	\$1,757 1	100 0%

Source Chancellor's Office, California Community Colleges.

the 11-year period from 1995-96 to 2005-06 Display 7 shows the categories of maintenance and repairs

The grand total for the full 14-year period is \$6,032 1 million, or \$430.9 million per year. This includes expenditures for new campuses and offcampus centers that will accommodate a portion of the community colleges' projected enrollment increase of over 500,000 students. Specifically, the Chancellor's Office anticipates the conversion of six community college centers to full campuses, the construction from the ground up of eight new campuses, and the initiation of 24 new off-campus centers Approximately \$105 million per year (24.4) percent of the total) is expected to be required to build these facilities, which should enroll about 30 percent of the additional students expected to attend the community colleges by 2005-06 The Commission will, of course, monitor closely the development of these new campuses and centers, and provide recommendations to the Governor and the Legislature on the necessity and location of each one

Concerning the cost of the Commission's space and utilization standards, the Chancellor's Office believes that the new standards will increase costs somewhat, although it offers no estimate of the amount. The Commission believes that the new standards will not increase costs for instructional facilities, although there will be some added expense occasioned by the increased square footage for faculty offices.

Funding options

With regard to funding sources, there are numerous possibilities, including the following: (1) general obligation bonds, (2) revenue bonds (also called "lease-payment" or "self-liquidating" bonds); (3) direct General Fund appropriations, (4) federal appropriations; (5) student fees, a portion of which could be directly allocated to construction projects or bond

debt service; (6) a special tax levy for capital outlay purposes only, which could be used for debt service or for direct appropriations; (7) lease/purchase agreements; and (8) private giving

In their responses to the Commission's inquiry, all three systems offer the view that general obligation and revenue bonds will have to be the primary sources of capital outlay funding. Beyond that, however, each offers other options as possibilities. The University of California, for example, places a greater emphasis on the idea of private giving than the other systems, indicating that as much as \$100 million per year could probably be raised by well orchestrated fund-raising efforts The State University also indicates that fund raising must be pursued, but it is less optimistic about the chances for success than is the University The State University adds, however, that such alternatives as a statewide higher education tax or earmarked student fees should be considered.

The Chancellor's Office of the California Community Colleges offers the view that alternatives to bonding must be found, since it is unlikely that a sufficient number of bonds can be authorized and sold to meet projected needs Among the alternatives considered - and the Chancellor's Office wishes to stress that it is not necessarily endorsing any of them -- are the following user fees for both credit and non-credit students; on-campus student elections to authorize fees for specific buildings, greater support from industry, particularly for equipment for vocational/technical/science laboratories, and implementation of the SARA system -- a computerized cost estimating and project management software package that offers some promise of saving money by making the capital outlay process more efficient

The Chancellor's Office also suggests greater efforts in the area of private fund raising, noting in passing, however, that such efforts have been minimally successful in the past, and emphasizing that its recently established Commission on Innovation will consider alternative capital outlay funding sources.

Finally, the Chancellor's Office mentions such options as year-round operations and weekend usage to improve facilities utilization, the use of telecommunications and computer-aided instruction, joint usage of facilities, and cooperative efforts with elementary and secondary schools and the four-year systems It notes as well that "all of these strategies (as well as others) have been tried and/or are still being pursued to one degree or another by most of the community colleges, but more must be done to improve space utilization" (Mangham, 1991)

In spite of these possible alternatives, the three public systems continue to stress State bonds as the primary financing mechanism. Given the history of capital financing, this is easy enough to understand Over the past several decades, there has been little enthusiasm for direct General Fund appropriations and, in more recent times, for such previously used sources as tidelands oil revenues Also, although there was a considerable infusion of federal construction money in the late 1960s through the Higher Education Facilities Act (HEFA), there is virtually no chance of federal funding in the current era of tight budgets and massive federal deficits. Nor does it appear that there is much support for the idea of increasing student fees for construction projects, even though student fees are currently used to finance debt service on various kinds of auxiliary enterprises such as student unions, dormitories, and food service facilities With fees increasing dramatically to offset reductions in General Fund support for University and State University non-capital operations, it is unlikely that further fee increases for capital outlay can be expected

Such a circumstance leaves bonds -- either general obligation or revenue -- as the primary source of funds for higher education capital outlay, a choice which presents another choice, since there are significant differences between the two types of financial instruments, as indicated in Display 8 on page 8 from a report by the Legislative Analyst.

The Analyst also indicates the relative costs of different bonding techniques, as shown in Display 9 on page 9. Displays 10 and 11 on pages 10 and 11 show how bond issues are amortized over the normal 20-year redemption period. In these examples, interest rates of 6 0 percent for general obligation bonds and 6.5 percent for revenue or lease/purchase bonds have been employed. Such rates may be slightly high given the recent reduction in the discount rate to 3.5 percent by the Federal Reserve Board, and the corresponding reduction in the prime rate to 4.5 percent. In the past, the prime rate has often corresponded relatively closely to long-term bond rates, even though that has not been the case in the past

DISPLAY 8 Comparison Between General Obligation Bonds and Revenue Bonds

Item	General Obligation Bonds	Revenue Bonds
Voter Approval Required	Yes	No
Pledged security to bondholders	Full faith and credit of the State (entire taxing power)	Annual debt-service appropriation
Interest rate on bonds	Lowest possible	Up to 0 5 percentage points above GO bond rate, depending on project
Underwriting process	Competitive bidding required	Competitive bidding not required/ negotiated sales permitted
Reserve fund needed to effectively market bonds, for protection of bondholders	No	Yes (or advance appropriations for debt service)
Need to purchase property and liability insurance	No	Yes
Amount of bonds required	Based on project costs	Bond volume must be upsized to cover project costs plus underwriting fees, debt service during construction period, insurance and reserve fund
Type of amortization schedule	Typically level principal repayment	Typically level total payment (principal plus interest)
Amount of debt-service costs	Lowest possible	Typically higher than for GA bonds
Pattern of debt-service costs	Typically highest in early years and declining thereafter	Typically fairly level over time

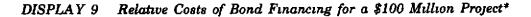
Source Office of the Legislative Analyst, 1991, p 8

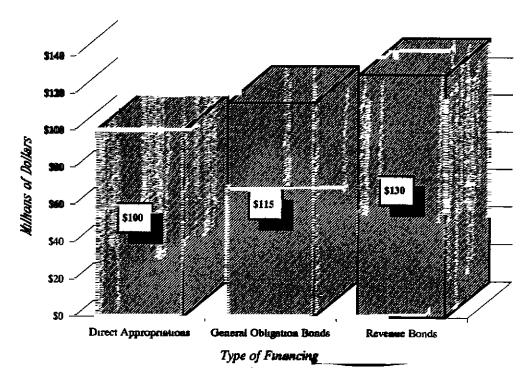
decade Display 12 shows that actual rates at which general obligation bonds have been sold by the State Treasurer since 1989. It can be seen that rates have declined, and it is probable that future issues will show further declines, although the Treasurer's Office does not expect the recent reduction in California's bond rating by Standard and Poor from AAA to AA to have more than a marginal affect on these rates -- perhaps a quarter point at most.

The capital outlay process

The process of bringing an academic building from the point of conception to the point of occupancy takes years of effort by hundreds of people There are multiple levels of review by campus architects and/or planners, academic senates, and administrators; further reviews by systemwide central office analysts and administrators; a review by councils of chancellors and presidents in the University and the State University, or by district offices in multicampus community college districts; then extensive reviews by the Department of Finance and the Office of the Legislative Analyst, and finally by the Governor and the Legislature. To this might well be added a review by the voters of California, since it is they who must approve general obligation bond issues.

A brief outline of the capital outlay process for each of the three segments is shown in Display 13 In reality, the process itself is considerably more complex than shown, since it involves a multitude of





^{*} Assumes a 30-year bond issue with an average interest rate of 7 0 percent for general obligation bonds and 7 5 percent for revenue bonds. Amounts shown are in constant dollars using an average annual inflation rate of 5 percent.

Source Office of the Legislative Analyst, 1991, p 8

consultative procedures with various constituent groups, and repeated contacts with State-level control agencies. The steps shown in the display, however, do illustrate most of the major procedures and approval stages. Display 14 presents a flow chart of the capital outlay process for the University of California in somewhat greater detail, as does Display 15 for the California State University and the California Community Colleges

In its September 30 request, the Commission's final question to the systems was, "Do you think a comprehensive examination of the capital outlay process from planning to occupancy, perhaps by an independent observer, would be useful?" The University responded that, while each of the campuses have been requested within the past year to suggest ways to make the process more efficient, "we are convinced that the greatest savings . . . can be achieved [by] significantly changing the State's

budgeting and project review process" (Smith, 1991). The University did not favor hiring a consultant, nor indicate any specific changes in the process, suggesting instead that

Designing an effective new process would require considerable thought to provide appropriate controls and reassurances to State authorities but at the same time permit the segments to manage the funds efficiently. We do not believe hiring a consultant to assist in this would be worthwhile because the parties involved already know the processes and their limitations well enough. Rather, we believe we could rapidly develop productive alternatives by working together with you and the other higher education segments (ibid).

The State University offered a few preliminary suggestions that may deserve further exploration, and is more positively inclined to the idea of a consul-

DISPLAY 10 Simulated General Obligation Bond Amortization Schedule for a \$100 Million Issue Over 20 Years at 6.0 Percent Interest

Fiscal Year	Principal	Interest	Total
1992-93	\$0	\$5,000,000	\$5,000,000
1993-97	5,000,000	5,750,000	10,750,000
1993-94	5,000,000	5,450,000	10,450,000
1994-95	5,000,000	5,150,000	10,150,000
1995-96	5,000,000	4,850,000	9,850,000
1996-97	5,000,000	4,550,000	9,550,000
1997-98	5,000,000	4,250,000	9,250,000
1998-99	5,000,000	3,950,000	8,950,000
1999-00	5,000,000	3,650,000	8,650,000
2000-01	5,000,000	3,350,000	8,350,000
2001-02	5,000,000	3,050,000	8,050,000
2002-03	5,000,000	2,750,000	7,750,000
2003-04	5,000,000	2,450,000	7,450,000
2004-05	5,000,000	2,150,000	7,150,000
2005-06	5,000,000	1,850,000	6,850,000
2006-07	5,000,000	1,550,000	6,550,000
2007-08	5,000,000	1,250,000	6,250,000
2008-09	5,000,000	950,000	5,950,000
2009-10	5,000,000	650,000	5,650,000
2010-11	5,000,000	350,000	5,350,000
2011-12	5,000,000	50,000	5,050,000
Total	\$100,000,000	\$63,000,000 ******************************	\$163,000,000
20-Yr Interest at 65%	\$100,000,000	\$68,250,000	\$168,250,000
Difference from 60%	\$0	\$5,250,000	\$5,250,000
20-Yr Interest at 70%	\$100,000,000	\$73,500,000	\$173,500,000
Difference from 6.0%	_\$0	\$10.500 <u>hadd</u>	\$10,500,000

Source Special projection, California State Treasurer

tant or independent observer than are the University of California and the California Community Colleges. The State University noted in its letter that some streamlining of the process is probably possible. One idea for doing so is to make greater use of lease/purchase programs, which have been successfully employed by the California Highway Patrol, the Employment Development Department, and

the Department of Forestry The advantage of lease/purchases is that the State does not have to appropriate funds to purchase a building until it is built and fully operational Another idea is to make a single appropriation for a project rather than multiple appropriations for planning, working drawings, construction, and equipment. Spreading appropriations out over several years necessitates

DISPLAY 11 Simulated Revenue Bond Amortization Schedule for a \$100 Million Issue Over 20 Years at 6.5 Percent Interest

Fiscal Year	Principal	Interest	Total
1992-93	\$2,575,640	\$6,500,000	\$9,075,640
1993-97	2,743,056	6,332,583	9,075,640
1993-94	2,921,355	6,154,285	9,075,640
1994-95	3,111,243	5,964,397	9,075,640
1995-96	3,313,474	5,762,166	9,075,640
1996-97	3,528,849	5,546, 7 90	9,075,640
1997-98	3,758,225	5,317,415	9,075,640
1998-99	4,002,509	5,073,130	9,075,640
1999-00	4,262,672	4,812,967	9,075,640
2000-01	4,539,746	4,535,894	9,075,640
2001-02	4,834,829	4,240,810	9,075,640
2002-03	5,149,093	3,926,546	9,075,640
2003-04	5,483,784	3,591,855	9,075,640
2004-05	5,840,230	3,235,409	9,075,640
2005-06	6,219,845	2,855,794	9,075,640
2006-07	6,624,135	2,451,504	9,075,640
2007-08	7,054,704	2,020,935	9,075,640
2008-09	7,513,260	1,562,380	9,075,640
2009-10	8,001,622	1,074,018	9,075,640
2010-11	8,521,727	553,912	9,075,640
Total	\$100,000,000	\$81,512,791	\$181,512,791
29-Yr Interest at 7.0%	\$100,000,000	\$88,785,851	\$188,785,851
Difference from 6.5%	\$0	\$7,273,061	\$7,273,061
20-Yr Interest at 7.5%	\$100,000,000	\$96,184,383	\$196,184,383
Difference from 6.5%	_ \$0 _	\$14 ,671,59 <u>3</u>	\$14,671,5 <u>93</u>

Source. Special projection, California State Treasurer

multiple justifications, multiple staff reviews, and multiple legislative hearings, all at considerable expense and often with major delays. The State University has already combined the planning and working drawing phases into a single appropriation action, and thinks it might be possible to streamline the State-level process further

The California Community Colleges' response noted that the existing application process is lengthy, perhaps overly so, and suggested that the following stages in the process might benefit from a detailed review, particularly the review by the Public Works Board within the Department of Finance.

DISPLAY 12 Interest Rates Applicable to Sales of General Obligation Bonds by the State Treasurer, 1989 to 1991

Date of Sale	Interest Rate
March 30, 1989	7 0510%
May 4, 1989	7 2470
June 29, 1989	6 4410
November 2, 1989	6 6340
March 8, 1990	6 7317
May 10, 1990	6 8450
September 20, 1990	6 2500
November 1, 1990	6 9200
December 20, 1990	6 4271
March 27, 1991	6 3549
September 5, 1991	6 2959
October 17, 1991	6 0661
November 21, 1991	6 0571

Source. California State Treasurer.

District's initial determination of need	State Department of Finance review
Architectural renderings and engineering	Office of the State Architect review
EIRs and local/regional permit process	State Public Works Board review
Chancellor's Office review	Legislative review

Summary and conclusion

According to projections developed for this report by the three public systems of California higher education, \$18,015.5 billion will be needed over the 14-year period from 1992-93 to 2005-06 for capital outlay, or just under \$1.3 billion per year in 1991 dollars. This amount compares to a State-funded average of just under \$500 million over the past five years (1987-88 to 1991-92) -- a half dacade that was well funded in comparison to the previous 12 years, which witnessed the disappearance of tidelands oil revenues and the impossibility of passing a state-wide bond issue. At present, the Legislature is considering two bills for a new general obligation bond

issue, one by Senator Gary Hart in the amount of \$900 million, and another by Assemblyman Tom Hayden for \$1 billion. When first introduced, the authors expected these amounts to be sufficient to meet most needs for a two-year period, which now seems unlikely given the size of the systems' requests, even if there is some supplementary financing from revenue/lease-payment bonds.

With numbers of this magnitude, and a current gap of \$600 to \$800 million between historical funding levels and necessary funding today, it is imperative that no opportunity for savings in capital expenditures be missed. At the same time, it would be a great disservice to advise policy makers that news and revolutionary strategies are available that will close a gap of this magnitude. There are no doubt savings at the margin that can produce a more efficient system and perhaps even engender greater confidence in the validity of the expenditures and the utility of the buildings those expenditures make possible, but no one should suppose that such potential innovations will obviate the need for large expenditures in the future. Renovation and deferred maintenance costs alone are expected to be between \$550 and \$600 million per year for the next 14 years, which is greater than the average annual capital outlay appropriation for all purposes over the past five years. The hard truth will always remain that buildings are expensive, will remain so, and must ultimately be paid for by the general revenues of the State.

In this preliminary exploration of a complex, expensive, and often highly emotional subject, the Commission has provided a preliminary explanation of some of the parameters of cost as well as the intricacies of process. Those who have been involved in budgetary review for a period of years have sometimes observed that the consideration of funding for physical facilities often elicits passions seldom witnessed when only support budget proposals are under review While not everyone may grasp the complexities of budgetary formulas that produce funding for faculty, administrators, or technical support, it seems that virtually everyone has an opinion on the design, location, size, or cost of buildings. It is this phenomenon alone that makes capital outlay a far more complex subject than it may at first appear to be, for it almost inevitably attracts to itself a consultation and decision-making process not accorded to proposals in other areas.

University of California

Concept and Document Phase

Develop project concept
Develop 5-yr capital program
Review capital program proposal
Do pre-design studies
Prepare project program guide
Establish systemwide priority list
Regents approval of program

Budgetary Review Phase

Department of Finance review Legislative Analyst review Scope meetings on campuses Governor's Budget Legislative committee review Legislature/Governor approval

Preliminary Plans Phase

Prepare schematic design
Regents approve project and
design
Campus design development
Public Works Board approval

Werking Drawing Phase

Prepare construction plans and specifications
Obtain regulatory review approvals
Public Works Board approves proceeding with bids

Bidding Phase

Advertise for bids

Public Works Board approves

construction funds

Contract awarded

Censtruction Phase

Construct project
File notice of completion

Claims Phase
File notice of claims
Resolve claims

The California State University

Concept and Document Phase
Campus determination of need
Develop 5-yr capital program
Chancellor's Office Review
Prepare Capital Outlay Budget
Change Proposal (COBCP)
Bd. of Trustees approval

Budgetary Review Phase

Department of Finance review Legislative Analyst review Scope meetings on campuses Governor's Budget approval Legislative committee review Legislature/Governor approval

Preliminary Plans Phase

Prepare schematic documents
Prepare design development
documents
Approve preliminary design

Working Drawing Phase

Prepare construction plans and specifications
Obtain approvals from the Offices of the State Architect and Fire Marshall
Public Works Board approves proceeding with bids

Bidding Phase

Advertise for bids
Public Works Board approves
construction funds
Contract awarded

Construction Phase

Construct project
File notice of completion

Claims Phase

File notice of claims Resolve claims

California Community Colleges

Concept and Document Phase

District determination of need
Prepare five-year plan
Collect supporting data
Architectural renderings and
engineering studies/EIR
Prepare Capital Outlay Budget
Change Proposal (COBCP)
Bd. of Gov. approval

Budgetary Review Phase

Department of Finance review Legislative Analyst review Scope meetings on campuses Governor's Budget approval Legislative committee review Legislature/Governor approval

Preliminary Plans Phase

Prepare schematic documents
Prepare design development
documents
Approve preliminary design

Working Drawing Phase

Prepare construction plans and specifications
Obtain approvals from the Offices of the State Architect and Fire Marshall
Public Works Board approves proceeding with bids

Bidding Phase

Advertise for bids
Public Works Board approves
construction funds
Contract awarded

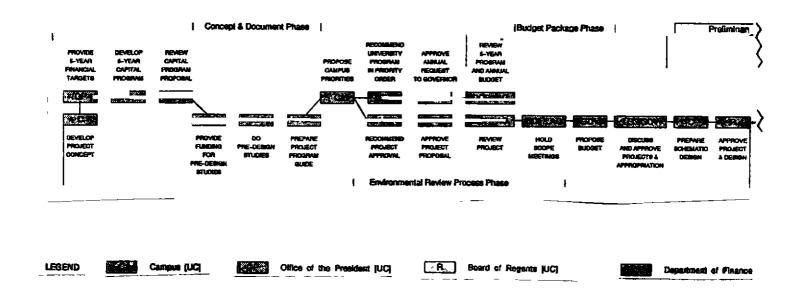
Construction Phase

Construct project
File notice of completion

Claims Phase
File notice of claims
Resolve claims

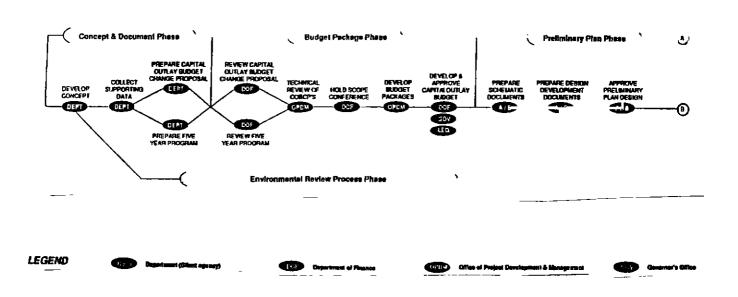
Sources. University of California: Office of the President. The California State University and the California Community Colleges. State Administrative Manual

DISPLAY 14 Simplified Flow Diagram, Capital Outlay Process for State-Funded Projects, University of



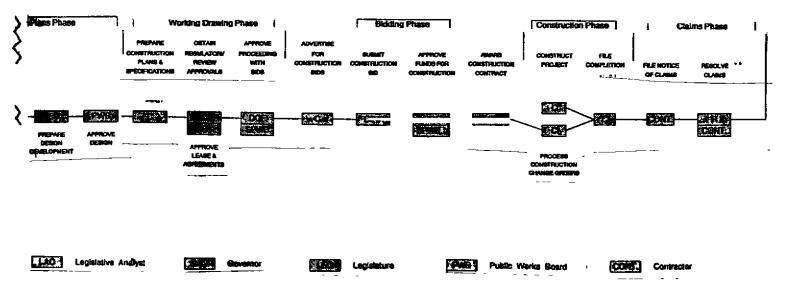
Source Office of the President, University of California

DISPLAY 15 Simplified Flow Diagram, Capital Outlay Process for State-Funded Projects, the California

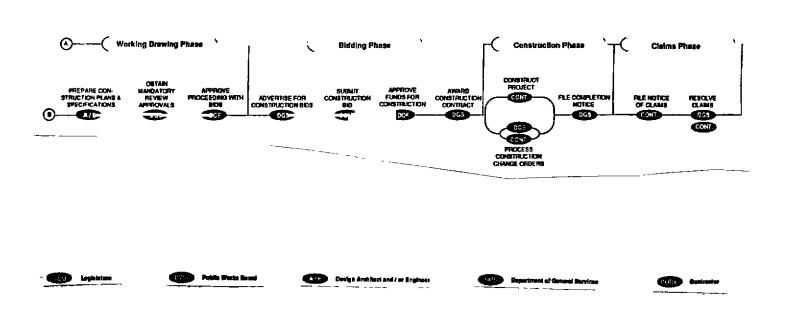


Source State Administrative Manual

California



State University and the California Community Colleges



In the past, the Commission's primary involvement has been limited to providing advice to "the Legislature and Governor regarding the need for and location of new institutions and campuses of public higher education" (Education Code Section 66903[5]), to the analysis of space and utilization standards, as evidenced by Coordinating Council and Commission reports from 1966 through 1986 in the list of references to this report, and to some general estimating of capital expenditures as part of a larger long-range planning process. This involvement has aided the planning process over the years, impacted segmental plans, and provided policy makers with timely advice. Currently, given the unparalleled level of austerity that has been imposed on the State General Fund, the difficulty of passing general obligation bond issues, the votermajority restrictions on the approval of local bond issues, and the continuing need for additional space to accommodate ever-increasing enrollments in all three of the public systems, it would be useful for the Commission to expand its involvement in the facilities planning area, while simultaneously maintaining its specific responsibility under the Education Code to review new campuses and off-campus centers

In considering new campuses and off-campus centers, the Commission intends to pay close attention to the requirements of its new Guidelines for Review of Proposed Campus and Off-Campus Centers, which place a strong emphasis on statewide planning and the prioritization of projects "in contrast to other potential segmental priorities" (1990c, p 3) This is particularly relevant for the University of California and the California State University, since their central governing structures make the establishment of systemwide priorities, and consequently the prioritization of the location of new institutions, a more realistic objective than in the more decentralized community college confederation. Nonetheless, the Commission will continue to ask the Chancellor's Office to examine all of the community colleges' priorities within the context of both its long-range planning efforts, and its process for determining capital outlay priority lists for the State Budget This issue may also be a fit subject for examination by the Chancellor's recently established Commission on Innovation.

The Commission intends to consider four additional

areas for exploration, some of which are noted in the language of its 1991-92 Plan of Work quoted in the introduction to this report. (1) the collection of comprehensive, integrated information on systemwide capital needs over the next 15 years; (2) a comprehensive examination of the capital outlay process itself, particularly at the State level, (3) an analysis of possible funding alternatives for capital construction and renovation; and (4) a review of the options for reducing capital costs by addressing the cost per square foot of construction

To consider a positive and productive approach to the mounting dilemma of how facilities are to be provided when so few resources are available, the Commission will convene a broadly based advisory committee to discuss these issues and develop a work plan That committee will include members from not only the three public systems, but also from the independent institutions, the Department of Finance, and the Office of the Legislative Analyst From time to time, it will also be necessary to receive input from the State Treasurer, the State Architect, the State Fire Marshall, and quite possibly some legislative committee staff members as well Subcommittees could also be created to address specific issues, and to encourage discussions among academic and facilities planners. A broadly based committee of this type could become more or less permanent and provide a constant stream of recommendations to the Commission, the Governor, the Legislature and other interested parties on any matter affecting the capital outlay process. Such a committee would be entirely consistent with the Commission's recommendation in A Capacity for Learning that the Advisory Committee for that study become a permanent arbiter and adviser relative to space and utilization standards in the public institutions.

To conclude, this report has offered a brief overview of capital outlay needs over the next decade or so, and the procedures incident to the building of academic facilities. It is intended to be only a summary of the subject matter and not a definitive analysis of any one aspect of the process. With the assistance of the broadly based advisory committee, the Commission will develop such analyses over the coming months and years.

References

California Postsecondary Education Commission. Comments on the California State University's Library Space Study: A report to the State University in Response to Budget Control Language in the 1984-85 Budget Act. Commission Report No 85-28. Sacramento, The Commission, April 1985a

- -- Self-Instruction Computer Laboratories in California's Public Universities: A Report to the Legislature in Response to Supplemental Language in the 1985-86 Budget Act. Commission Report 85-39. Sacramento, The Commission, December 1985b.
- -- Time and Territory A Preliminary Exploration of Space and Utilization Guidelines in Engineering and the Natural Sciences. Commission Report 86-2. Sacramento, The Commission, February 1986a
- --. Time and Territory: Phase II A Report to the Legislature in Response to Supplemental Language in the 1985-86 Budget Act. Commission Report 86-12. Sacramento, The Commission, April 1986b.
- --. Higher Education at the Crossroads Planning for the Twenty-First Century. Commission Report 90-1 Sacramento: The Commission, January 1990a
- --. A Capacity for Learning. Revising Space and Utilization Standards for California Public Higher Education Commission Report 90-3 Sacramento, The Commission, January 1990b.
- --. Guidelines for Review of Proposed Campuses and Off-Campus Centers. Commission Report 90-9. Sacramento, The Commission, January 1990c
- -- Library Space Standards at the California State University: A Report to the Legislature in Response to Supplemental Language to the 1990-91 State Budget. Commission Report 91-1 Sacramento, The

Commission, January 1991a

- -- 1991-92 Plan of Work for the California Postsecondary Education Commission Major Studies and Other Commission Activities. Commission Report 91-18 Sacramento: The Commission, September 1991b.
- --. "Update of Data from Fiscal Profiles," p. 11. Information Item 12, Commission Agenda Packet for the, December 9, 1991, Meeting. Sacramento, The Commission, December 1991c

The California State University. Status Report II: The California State University Long-Range Growth Plan, 1990-2005 Office of the Chancellor. Long Beach. The Chancellor's Office, August 1991.

Coordinating Council for Higher Education. Space and Utilization Standards, California Public Higher Education. Coordinating Council Report 1027, September 1966

- --. Inventory and Utilization Study for Public Higher Education. Coordinating Council Report 71-2, January 1971
- --. A Facilities Analysis Model for Space Planning and Cost Simulation Coordinating Council Report No. 73-4, April 1973

Mangham, Clarence Letter to William Storey, November 6, 1991

Office of the Legislative Analyst. "Overview of Higher Education Capital Outlay." Sacramento,. The Office, April 29, 1991

Smith, Sandra Letter to William L. Storey, November 25, 1991

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature.

Members of the Commission

The Commission consists of 17 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. Six others represent the major segments of postsecondary education in California. Two student members are appointed by the Governor.

As of October 1994, the Commissioners representing the general public are

Henry Der, San Francisco, Chair
C Thomas Dean, Long Beach, Vice Chair
Elaine Alquist, Santa Clara
Mim Andelson, Los Angeles
Jeffrey I Marston, San Diego
Guillermo Rodriguez, Jr, San Francisco
Melinda G Wilson, Torrance
Linda J Wong, Los Angeles
Ellen F Wright, Saratoga

Representatives of the segments are

Roy T Brophy, Fair Oaks, appointed by the Regents of the University of California,

Yvonne W Larsen, San Diego, appointed by the California State Board of Education,

Alice Petrossian, Glendale, appointed by the Board of Governors of the California Community Colleges,

Ted J Saenger, San Francisco, appointed by the Trustees of the California State University,

Kyhl Smeby, Pasadena, appointed by the Governor to represent California's independent colleges and universities, and

Jaye L. Hunter, Long Beach, appointed by the Council for Private Postsecondary and Vocational Education The two student representatives are Stephen Lesher, Meadow Vista Beverly A Sandeen, Costa Mesa

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including community colleges, four-year colleges, universities, and professional and occupational schools

As an advisory body to the Legislature and Governor, the Commission does not govern or administer any institutions, nor does it approve, authorize, or accredit any of them Instead, it performs its specific duties of planning, evaluation, and coordination by cooperating with other State agencies and non-governmental groups that perform those other governing, administrative, and assessment functions

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, its meetings are open to the public. Requests to speak at a meeting may be made by writing the Commission in advance or by submitting a request before the start of the meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its executive director, Warren Halsey Fox, Ph D, who is appointed by the Commission

Further information about the Commission and its publications may be obtained from the Commission offices at 1303 J Street, Suite 500, Sacramento, California 98514-2938, telephone (916) 445-7933

Prospects for Long-Range Capital Planning in California Public Higher Education: A Preliminary Review

California Postsecondary Education Commission Report 92-4

ONE of a series of reports published by the Commission as part of its planning and coordinating responsibilities. Additional copies may be obtained without charge from the Publications Office, California Post-secondary Education Commission, Third Floor, 1020 Twelfth Street, Sacramento, California 95814-3985

Recent reports of the Commission include

- 91-5 Status Report on Human Corps Activities, 1991 The Fourth in a Series of Five Annual Reports to the Legislature in Response to Assembly Bill 1829 (Chapter 1245, Statutes of 1987) (April 1991)
- 91-6 The State's Reliance on Non-Governmental Accreditation, Part Two A Report to the Legislature in Response to Assembly Bill 1993 (Chapter 1324, Statutes of 1989) (April 1991)
- 91-7 State Policy on Technology for Distance Learning Recommendations to the Legislature and the Governor in Response to Senate Bill 1202 (Chapter 1038, Statutes of 1989) (April 1991)
- 91-8 The Educational Equity Plan of the California Maritime Academy A Report to the Legislature in Response to Language in the Supplemental Report of the 1990-91 Budget Act (April 1991)
- 91-9 The California Maritime Academy and the California State University A Report to the Legislature and the Department of Finance in Response to Supplemental Report Language of the 1990 Budget Act (April 1991)
- 91-10 Faculty Salaries in California's Public Universities, 1991-92 A Report to the Legislature and Governor in Response to Senate Concurrent Resolution No 51 (1965) (April 1991)
- 91-11 Updated Community College Transfer Student Statistics, Fall 1990 and Full-Year 1989-90 A Staff Report to the California Postsecondary Education Commission (April 1991)
- 91-12 Academic Program Evaluation in California, 1989-90 The Commission's Fifteenth Annual Report on Program Planning, Approval, and Review Activities (September 1991)
- 91-13 California's Capacity to Prepare Registered Nurses A Preliminary Inquiry Prepared for the Legislature in Response to Assembly Bill 1055 (Chapter 924, Statutes of 1990) (September 1991)
- 91-14 Supplemental Report on Academic Salaries, 1990-91 A Report to the Governor and Legislature in Response to Senate Concurrent Resolution No 51 (1965) and Supplemental Language to the 1979, 1981, and 1990 Budget Acts (September 1991)

- 91-15 Approval of Las Positas College in Livermore A Report to the Governor and Legislature on the Development of Las Positas College -- Formerly the Livermore Education Center of Chabot College (September 1991)
- 91-16 Update on Long-Range Planning Activities Report of the Executive Director, September 16, 1991 (September 1991)
- 91-17 The Role, Structure, and Operation of the Commission A Preliminary Response to Senate Bill 2374 (October 1991)
- 91-18 1991-92 Plan of Work for the California Postsecondary Education Commission Major Studies and Other Commission Activities (October 1991)
- 91-19 Reauthorization of the Higher Education Act of 1965 as Amended. A Report to California's Congressional Delegation Summarizing Consensus in California's Higher Education Community Regarding Proposed Revisions of the Act (December 1991)
- 91-20 Student Fees, Access, and Quality Prospects and Issues for the 1992-93 Budget Process (December 1991)
- 91-21 Legislative and State Budget Priorities of the Commission, 1992 A Report of the California Postsecondary Education Commission (December 1991)
- 91-22 Proposed Construction of the Western Nevada County Center, Sierra Joint Community College District A Report to the Governor and Legislature in Response to a Request for Capital Funds for a Permanent Off-Campus Center in the Grass Valley/Nevada City Area (December 1991)
- 92-1 Final Report on the Effectiveness of Intersegmental Student Preparation Programs The Third Report to the Legislature in Response to Item 6420-0011-001 of the 1988-89 Budget Act (January 1992)
- 92-2 Assessing Campus Climate Feasibility of Developing an Educational Equity Assessment System (January 1992)
- 92-3 California's Joint Doctoral Programs A Report on Doctoral Programs Offered by Campuses of the California State University with Campuses of the University of California and the Claremont Graduate School (January 1992)
- 92-4 Prospects for Long-Range Capital Planning in California Public Higher Education A Preliminary Review A Staff Report to the California Postsecondary Education Commission (January 1992)